# SUSAN CLAIRE WALLS CURRICULUM VITA

# **ADDRESS**

U. S. Geological Survey

Southeast Ecological Science Center

7920 NW 71<sup>st</sup> St.

Gainesville, FL 32653-3071

352.264.3507 (office)
352.378.4122 (home)
352.395.6608 (FAX)
e-mail: <a href="mailto:swalls@usgs.gov">swalls@usgs.gov</a>

# **EDUCATION**

Ph.D.	1991	University of Louisiana at Lafayette (Environmental and Evolutionary Biology) Dr. Robert G. Jaeger, Advisor
M.S.	1985	University of Louisiana at Lafayette (Biology)

B.S. 1983 Mississippi State University (Zoology)

# **EMPLOYMENT**

April, 2007- Present	Wildlife Biologist, U. S. Geological Survey, Florida Integrated Science Center, Gainesville, FL
July, 2000 – March, 2007	Research Ecologist, U. S. Geological Survey, National Wetlands Research Center, Lafayette, LA
1996- June, 2000	Assistant Professor, Department of Biological Sciences, The University of Southern Mississippi
1994-1996	Assistant Professor, Department of Biology, The City College of The City University of New York
1992-1993	N.S.F. Postdoctoral Research Associate, Oregon State University (with Dr. Andrew R. Blaustein)
1991-1992	Instructor, Department of Zoology, Oregon State University
1986-1991	Teaching Assistant, Department of Biology, University of Louisiana at Lafayette
1983-1985	Teaching Assistant, Department of Biology, University of Louisiana at Lafayette
1982	Teaching Assistant, Department of Zoology, Mississippi State University

#### OTHER EMPLOYMENT

1986 Iguana Management Project, Smithsonian Tropical Research Institute, Balboa, Panama

#### **COURSES TAUGHT**

## University of Florida, Gainesville, FL (2007-present):

Guest Lecturer in "Wildlife Techniques", Department of Wildlife Ecology and Conservation (2007, 2008)

Guest Lecturer for "Conservation of Amphibians and Reptiles" (WIS 4934), Department of Wildlife Ecology and Conservation, 24 September 2009

# The University of Southern Mississippi (1996-2000):

Biological Science (BSC 103)

Principles of Biological Sciences I (BSC 110)

Principles of Biological Sciences II (BSC 111)

Biology of Vertebrates (BSC 407/507)

Herpetology (BSC 417/517)

Senior Practicum (BSC 497)

# The City College of The City University of New York (1994-1996):

Population and Community Biology (Biology 208)

# Oregon State University (1991-1992):

General Ecology (BI 370)

General Biology (Ecology and Evolution) (BI 212)

Evolution (BI 445/545)

1999-2002

Graduate Seminar ("Sexual Selection and Sex Determination") (Z 507b)

#### GRADUATE/HONOR STUDENT COMMITTEES CHAIRED

	Behavior of the Meditterranean Gecko (Hemidactylus turcicus)".
1998-2001	Lorie Yates, M.S., University of Southern Mississippi, "The Agonistic Behavior of Three Species of Plethodontid Salamanders (Plethodontidae)".

Venetia Briggs, M.S., University of Southern Mississippi, "Agonistic

1998-1999 Jill Arnold, B.S., Honors Thesis, University of Southern Mississippi, "The Effects of Genetic Relatedness and Alternate Prey on Cannibalism in Mosquitofish".

# MEMBERSHIP ON GRADUATE STUDENT COMMITTEES (DATE INDICATES YEAR OF COMPLETION)

2006	Sarah Barlow, M.S., Louisiana State University, "Monitoring Anuran Richness and Relative Abundance in Created Wetlands of Central Louisiana".
2004	Tonya Darden, Ph.D., University of Southern Mississippi, "Evolutionary and Ecological Processes within Dystrophic Blackwater Habitats: Speciation, Dispersal and Historic Biogeography in Enneacanthini Sunfishes and Potential Factors Influencing Their Local Distributions".
2003	Pamela Schofield, Ph.D., University of Southern Mississippi, "The Importance of Competition and Physiological Tolerance for Two Gobies ( <i>Microgobius gulosus</i> and <i>Gobiosoma robustum</i> ; Family: Gobiidae) in a lagoonal estuarine system (Florida Bay, Florida, USA)"
2003	Robert Page, M. S., University of Louisiana at Lafayette, "Signal Ambiguity and the Assessing of Imperfect Information in Red-Backed Salamanders ( <i>Plethodon cinereus</i> )".
2003	Robert Smith, Ph.D., University of Southern Mississippi, "Resources and Arrival of Landbird Migrants at Northerly Breeding Grounds: Linking <i>en route</i> with Breeding Season Events".
2002	John Himes, Ph.D., University of Southern Mississippi, "The Role of the Midland Water Snake, <i>Nerodia sipedon</i> , as a Competitor, Predator, and Prey in Freshwater Communities".
2001	Mollie Cashner, M.S., University of Southern Mississippi, "An investigation of chemical alarm systems of a coevolved assemblage of freshwater fishes in the southeastern United States".
2001	Colleen Dywer, M.S., University of Southern Mississippi, "Age-related differences in the pre-migratory behavior of Gray Catbirds".
2001	Megan Gibbons Peterson, Ph.D., University of Louisiana at Lafayette, "Complex behaviors in the red-backed salamander: Foraging and kin discrimination".
2001	Aimée Lee, M.S., University of Southern Mississippi, "The influence of predatory fishing spiders on the foraging ecology and refuge use of larval salamanders".

2000	Scott Smyers, M.S., University of Louisiana at Lafayette, "Behavioral interactions within and between species of juvenile pond-breeding salamanders".
2000	Michael Rubbo, M.S., University of Louisiana at Lafayette, "Ecological interactions and sensory adaptations of three species from a terrestrial leaf litter community".
2000	Stephan Woltmann, M.S., University of Southern Mississippi, "Autumn migration behavior and winter distribution of migratory hawks".
2000	David Cimprich, Ph.D., University of Southern Mississippi, "Predation risk and the predator avoidance behavior of migrant birds during stopover".

#### TECHNICAL TRAINING RECEIVED (in USGS)

- Project Leadership, Management and Communications, Washington, DC, May 2006
- Leadership Intensive Training, Lafayette, LA, January, 2005
- Supervisory Challenge in the USGS, Denver, CO, 2003
- Introduction to GPS for Natural Resources, University of Louisiana at Lafayette, Lafayette, LA, 2001
- National Wetlands Research Center and Redfish Point, Vermillion Bay, LA, 2001
   Motorboat Operator Certification Course
- Introduction to Desktop GIS (Arcview) for Natural Resources, University of Louisiana at Lafayette, Lafayette, LA, 2001
- Introduction to National Wetlands Classification System, University of Louisiana at Lafayette, Lafayette, LA, 2001

#### **PUBLICATIONS**

### **Book Chapters:**

- Blaustein, A.R. and **S.C. Walls**. 1995. Aggregation and kin recognition. In: *Amphibian Biology*, vol. 3 (Ed. by H. Heatwole and B. K. Sullivan). Chipping Norton, Australia: Surrey Beatty & Sons, pp. 568-602.
- Mathis, A., R.G. Jaeger, W.H. Keen, P.K. Ducey, **S.C. Walls** and B.W. Buchanan. 1995. Aggression and territoriality in salamanders and a comparison with the territorial behaviour of frogs. In: *Amphibian Biology*, vol. 3 (Ed. by H. Heatwole and B. K. Sullivan). Chipping Norton, Australia: Surrey Beatty & Sons, pp. 633-676.
- Dorcas, M.E., S.J. Price, **S.C. Walls** and W.J. Barichivich. 2009. Auditory Monitoring of Anuran Populations. Chapter 16 in C.K. Dodd, Jr. (ed.): *Techniques in Ecology and Conservation*. Pp. 281-298. Oxford University Press.

# **Book Reviews:**

- **Walls, S.C**. 1993. Book Review: *Cannibalism: Ecology and Evolution among Diverse Taxa*. M. A. Elgar and B. J. Crespi. *The Quarterly Review of Biology* 68:621.
- **Walls, S.C.** 2008. Review of "The Ecology and Behavior of Amphibians", by K.D. Wells, for The Quarterly Review of Biology 83:416-417.

# **Peer-reviewed Journal Articles:**

- **Walls, S.C.** and R. Altig. 1986. Female reproductive biology and larval life history of *Ambystoma* salamanders: a comparison of egg size, hatchling size, and larval growth. *Herpetologica* **42**:334-345.
- **Walls, S.C.** and R.G. Jaeger. 1987. Aggression and exploitation as mechanisms of competition in larval salamanders. *Canadian Journal of Zoology* **65**:2938-2944.
- Jaeger, R.G. and **S.C. Walls**. 1989. On salamander guilds and ecological methodology. *Herpetologica* **45**:111-119.
- **Walls, S.C.** and R.G. Jaeger. 1989. Growth in larval salamanders is not inhibited through chemical interference competition. *Copeia* **1989**:1049-1052.
- **Walls, S.C.**, A. Mathis, R.G. Jaeger and W.F. Gergits. 1989. Male salamanders with high quality diets have faeces attractive to females. *Animal Behaviour* **38**:546-548.
- **Walls, S.C.** 1990. Interference competition in post-metamorphic salamanders: interspecific differences in aggression by coexisting species. *Ecology* **71**:307-314.
- Semlitsch, R.D. and **S.C. Walls**. 1990. Geographic variation in the egg-laying strategy of the mole salamander, *Ambystoma talpoideum*. *Herpetological Review* **21**:14-15.
- **Walls, S.C.** and R.E. Roudebush. 1991. Reduced aggression toward siblings as evidence of kin recognition in cannibalistic salamanders. *The American Naturalist* **138**:1027-1038.
- **Walls, S.C.** and R.D. Semlitsch. 1991. Visual and movement displays function as agonistic behavior in larval salamanders. *Copeia* **1991**:936-942.
- **Walls, S.C.** 1991. Ontogenetic shifts in the recognition of siblings and neighbours by juvenile salamanders. *Animal Behaviour* **42**:423-434.
- Walls, S.C., A.R. Blaustein and J.J. Beatty. 1992. Amphibian biodiversity of the Pacific Northwest with special reference to old growth stands. *Northwest Environmental Journal* 8:53-69.
- Walls, S.C., J.J. Beatty, B.N. Tissot, D.G. Hokit and A.R. Blaustein. 1993. Morphological variation and cannibalism in a larval salamander (*Ambystoma macrodactylum columbianum*). Canadian Journal of Zoology 71:1543-1551.

- **Walls, S.C.**, S.S. Belanger and A.R. Blaustein. 1993. Morphological variation in a larval salamander: dietary induction of plasticity in head shape. *Oecologia* **96**:162-168.
- Semlitsch, R.D. and **S.C. Walls**. 1993. Competition in two species of larval salamanders: a test of geographic variation in competitive ability. *Copeia* **1993**:587-595.
- Blaustein, A.R., T. Yoshikawa, K. Asoh and **S.C. Walls**. 1993. Ontogenetic shifts in tadpole kin recognition: loss of signal and perception. *Animal Behaviour* **46**:525-538.
- Blaustein, A.R., P.D. Hoffman, D.G. Hokit, J.M. Kiesecker, **S.C. Walls** and J. B. Hays. 1994. UV repair and resistance to solar UV-B in amphibian eggs: a link to population declines? *Proceedings of the National Academy of Science USA* **91**:1791-1795.
- Seaman, J.W., Jr., S.C. Walls, S.E. Wise and R.G. Jaeger. 1994. Caveat emptor: rank transform methods and interaction. *Trends in Ecology and Evolution* **9**:261-263.
- **Walls, S.C.** and A.R. Blaustein. 1994. Does kinship influence density dependence in a larval salamander? *Oikos* **71**:459-468.
- **Walls, S.C**. 1995. Differential vulnerability to predation and refuge use in competing larval salamanders. *Oecologia* **101**:86-93.
- **Walls, S.C.** and A.R. Blaustein. 1995. Larval marbled salamanders, *Ambystoma opacum*, eat their kin. *Animal Behaviour* **50**:537-545.
- Blaustein, A.R., J.M. Kiesecker, D.G. Hokit and **S.C. Walls**. 1995. Amphibian declines and UV radiation. *BioScience* **45**:514-515.
- Blaustein, A.R., J.M. Kiesecker, **S.C. Walls** and D.G. Hokit. 1996. Field experiments, amphibian mortality, and UV radiation. *BioScience* **46**:386-388.
- Hokit, D.G., **S.C. Walls** and A.R. Blaustein. 1996. Context-dependent kin discrimination in larvae of the marbled salamander, *Ambystoma opacum*. *Animal Behaviour* **52**:17-31.
- **Walls, S.C.**, C. S. Conrad, M.L. Murillo and A. R. Blaustein. 1996. Agonistic behaviour in larvae of the Northwestern salamander (*Ambystoma gracile*): the effects of kinship, familiarity and population source. *Behaviour* **133**:965-984.
- **Walls, S.C.** 1996. Differences in foraging behaviour explain interspecific growth inhibition in competing salamanders. *Animal Behaviour* **52**:1157-1162.
- **Walls, S.C.** 1998. Density dependence in a larval salamander: the effects of interference and food limitation. *Copeia* **1998**:926-935.
- **Walls, S.C.** and M.G. Williams. 2001. The effect of community composition on persistence of prey with their predators in an assemblage of pond-breeding amphibians. *Oecologia* **128**:134-141.

- **Walls, S.C.**, D.G. Taylor and C.M. Wilson. 2002. Interspecific differences in susceptibility to competition and predation in a species-pair of larval anurans. *Herpetologica* **58**:104-118.
- Muths, E., R.E. Jung, L.L. Bailey, M.J. Adams, P.S. Corn, C.K. Dodd Jr., G.M. Fellers, W.J. Sadinski, C.R. Schwalbe, **S.C. Walls**, R.N. Fisher, A.L. Gallant, W.A. Battaglin and D.E. Green. 2005. Amphibian Research and Monitoring Initiative (ARMI): A successful start to a national program in the United States. *Applied Herpetology* **2**:355-371.
- Lichtenberg, J.S., S.L. King, J.B. Grace, and **S.C. Walls**. 2006. Habitat associations of chorusing anurans in the Lower Mississippi River Alluvial Valley. *Wetlands* **26**:736-744.
- Mitchell, J.C. and **S.C. Walls**. 2006. Field notes: *Opheodrys aestivus* (Rough Greensnake). *Catesbeiana* **26:**26-27.
- Mitchell, J.C., J.D. Groves, and **S.C. Walls**. 2006. Keratophagy in reptiles: review, hypotheses, and recommendations. *South American Journal of Herpetology* **1**:42-53.
- Drake, D.L., R. Altig, J.B. Grace, and **S.C. Walls**. 2007. Occurrence of oral defects in larval anurans. *Copeia* **2007**:449-458.
- Mitchell, J. C. and **S. C. Walls**. 2008. Cannibalism. *In* Sven Erik Jørgensen and Brian D. Fath (Editor-in-Chief), Population Dynamics. Vol. 1 of *Encyclopedia of Ecology*, 5 vols. pp. 513-517. Oxford: Elsevier.
- Mitchell, J.C., **S.C. Walls** and J.W. Beck. 2008. *Virginia striatula* (Rough Earth Snake). Aggregation and urban habitat. *Herpetological Review*. **39**:474-475.
- Rothermel, B. B., **S. C. Walls**, J. C. Mitchell, C. K. Dodd, Jr., L. K. Irwin, D. E. Green, V. M. Vazquez, J. W. Petranka and D. J. Stevenson. 2008. Widespread occurrence of the amphibian chytrid fungus (*Batrachochytrium dendrobatidis*) in the southeastern United States. *Diseases of Aquatic Organisms* **82**:3-18.
- **Walls, S.C**. 2009. The role of climate in the dynamics of a hybrid zone in Appalachian salamanders. *Global Change Biology* **15**:1903-1910.
- Blaustein, A.R., **S.C. Walls**, B.A. Bancroft, J.J. Lawler, C.L. Searle, and S.S. Gervasi. 2010. Direct and indirect effects of climate change on amphibian populations. *Diversity* **2**:281-313.
- Waddle, J.H., R.M. Dorazio, **S.C. Walls**, K.G. Rice, J. Beauchamp, M. Schuman and F.J. Mazzotti. A new parameterization for estimating co-occurrence of interacting species. *Ecological Applications*: in press.

# **Pending Manuscripts:**

- Faulkner, S., W. Barrow, B. Keeland, **S. Walls**, D. Telesco and D. Fuller. Effects of Conservation Practices on Wetlands in the Mississippi Alluvial Valley. Submitted to *Ecological Applications*.
- **Walls, S.C.**, J.H. Waddle, and R.M. Dorazio. Estimating occupancy dynamics in an anuran assemblage. Submitted to *Journal of Wildlife Management*.
- Barichivich, W.J., **S.C. Walls**, and M.E. Brown. Effect of precipitation extremes and drought on late-season oviposition in a pond-breeding salamander: insight into potential impacts of climate change? Submitted to *Herpetological Review*.

# **Reports:**

Muths, E., A.L. Gallant, E.H. Campbell Grant, W.A. Battaglin, D.E. Green, J.S. Staiger, **S.C. Walls**, M.S. Gunzburger, and R.F. Kearney. 2006. The Amphibian Research and Monitoring Initiative (ARMI): 5-year report. Scientific Investigations Report 2006-5224. Reston, VA: U.S. Geological Survey. 77 p.

# **RESEARCH GRANTS**

2009	\$70,000	"Use of Amphibian Communities as Indicators of Restoration Success in the Greater Everglades". Funded by USGS Greater Everglades Priority Ecosystems Science Program.
2008	\$68,250	"Validation of Amphibian Models for Use in the Southwest Florida Feasibility Study: Evaluation of Pre-restoration Communities and Potential Impacts of Climate Change." Funded by USGS Greater Everglades Priority Ecosystems Science Program.
2007	\$88,801	Competitive Award from the USGS Amphibian Research and Monitoring Initiative (ARMI): "Examination of the potential effects of feral hogs (Sus scrofa) on the federally threatened Flatwoods Salamander, Ambystoma cingulatum"
2004	\$70,860	Competitive Award from the USGS Amphibian Research and Monitoring Initiative (ARMI): "Advancing Froglogger Technology: Leaping into the Future".
2000	\$ 7,500	Research Award from the Summer Faculty Research Grant Program of The University of Southern Mississippi
1997	\$ 7,500	Research Award from the Summer Faculty Research Grant Program of The University of Southern Mississippi
1995	\$ 3,852	Research Award from the Black Rock Forest Consortium (Cornwall, New York)

1995	\$ 8,200	Research Award from the Professional Staff Congress of The City University of New York (PSC-CUNY).
1992	\$ 4,000	National Science Foundation, Research Experiences for Undergraduates Supplemental Grant; co-principal investigator with Dr. Andrew R. Blaustein.
1991	\$ 85,000	National Science Foundation (2 years) ("The ontogeny and adaptive significance of kin recognition in a model amphibian system"); co-principal investigator with Dr. Andrew R. Blaustein.
1988	\$ 450	Grant-in-Aid of Research, Sigma Xi ("Geographic variation in the coexistence of two species of larval salamanders (Ambystoma): the role of interspecific competition").

# PRESENTATIONS – INVITED AND OTHER ADDRESSES TO SOCIETIES

- 1983 Walls, S. C. and R. Altig. "Female reproductive biology of two freshwater crustaceans from temporary forest ponds in Mississippi". Presented at the Meeting of the Association of Southeastern Biologists, Lafayette, Louisiana.
- Walls, S. C. and R. Altig. "The female reproductive biology of the marbled salamander, *Ambystoma opacum*, in Mississippi." Presented at the Combined Meeting of the American Society of Ichthyologists and Herpetologists, Society for the Study of Amphibians and Reptiles, and the Herpetologists' League, Norman, Oklahoma.
- 1986 Walls, S. C. "Aggression, exploitation and fungal infection as mechanisms of competition in larval *Ambystoma*." Presented at the Combined Meeting of the Society for the Study of Amphibians and Reptiles and the Herpetologists' League, Springfield, Missouri.
- 1986 Werner, D. I., S. C. Walls and D. Feener. "Incubation of *Iguana iguana* eggs: conditions and their effect on hatchling quality." Presented at the Combined Meeting of the Society for the Study of Amphibians and Reptiles and the Herpetologists' League, Springfield, Missouri.
- 1987 Walls, S. C., S. A. Mathis and R. G. Jaeger. "Male salamanders have sexy feces." Presented at the Meeting of the Animal Behavior Society, Williamstown, Massachusetts.
- 1987 Walls, S. C. "Aggression in juvenile salamanders: asymmetries in contests for refuges." Presented at the Meeting of the American Society of Zoologists, New Orleans, Louisiana.
- 1988 Walls, S. C. and R. G. Jaeger. "Competition in salamander larvae (*Ambystoma*): is growth inhibited through chemical interference?" Presented at the Combined Meeting of Herpetologists' League, the Society for the Study of Amphibians and

- Reptiles, and the American Society of Ichthyologists and Herpetologists, Ann Arbor, Michigan.
- 1989 Walls, S. C. "The effects of body size and residency on asymmetric contests among juvenile salamanders." Presented at the Meeting of the Animal Behavior Society, Highland Heights, Kentucky.
- 1990 Walls, S. C. and R. E. Roudebush. "Reduced aggression toward siblings as evidence of kin recognition in cannibalistic salamanders." Presented at the Meeting of the Animal Behavior Society, Binghamton, New York.
- 1990 Walls, S. C. "Interspecific differences in foraging behavior explain the differential growth of competing larval salamanders." Presented at the Combined Meeting of the Herpetologists' League and the Society for the Study of Amphibians and Reptiles, New Orleans, Louisiana.
- 1991 Walls, S. C. "Behavioral differences in response to intraguild predation in two competing species of larval *Ambystoma*." Presented at the Combined Meeting of the Herpetologists' League and the Society for the Study of Amphibians and Reptiles, University Park, Pennsylvania.
- 1992 Walls, S. C. "Competition in postmetamorphic *Ambystoma*: implications for juvenile recruitment in the terrestrial environment." **Invited presentation** in the Canadian Association of Herpetologists' Symposium, "Ecology and Evolution of Ambystomatid Salamanders", held at the Combined Meeting of the American Society of Ichthyologists and Herpetologists, the Herpetologists' League, and the American Elasmobranch Society. Urbana-Champaign, Illinois.
- 1992 Walls, S. C., J. J. Beatty, B. N. Tissot, D. G. Hokit and A. R. Blaustein. "Divergent patterns of morphological variation in a polyphenic larval salamander."

  Presented at the Combined Meeting of the American Society of Ichthyologists and Herpetologists, the Herpetologists' League, and the American Elasmobranch Society. Urbana-Champaign, Illinois.
- 1992 Walls, S. C., A. R. Blaustein and D. G. Hokit. "Ecological correlates of kin recognition." Presented at the Meeting of the Ecological Society of America, Honolulu, Hawaii.
- 1993 Walls, S. C. and A. R. Blaustein. "Aggregation and kin recognition behavior in amphibians." **Invited symposium presentation** at the Meeting of the Animal Behavior Society, University of California at Davis.
- 1993 Walls, S. C., C. S. Conrad and A. R. Blaustein. "Sibling cannibalism in a larval salamander: discriminating cannibals or kamikaze prey?" Presented at the Meeting of the Animal Behavior Society, University of California at Davis.

- Hokit, D. G., S. C. Walls and A. R. Blaustein. "Context-dependent kin discrimination in a larval salamander (*Ambystoma opacum*)." Presented at the Combined Meeting of the Herpetologists' League/Society for the Study of Amphibians and Reptiles, University of Georgia, Athens.
- 1995 Walls, S. C. "Sibling cannibalism: a side-effect of 'species' recognition? Presented at the meeting of the Northeast Regional Animal Behavior Society, Smith College, Northampton, Massachusetts.
- 1996 Walls, S. C. "Variation in kinship behavior in larval marbled salamanders: what are the ecological and evolutionary factors?" <u>Invited presentation</u> in the symposium, "Intraspecific Variation in the Behavior and Ecology of Amphibians", held at the Combined Annual Meeting of the American Society of Ichthyologists and Herpetologists/Herpetologists' League, New Orleans, Louisiana.
- Walls, S. C. Density dependence in a larval salamander: the contributions of interference and food limitation. Presented at the Combined Meeting of the American Society of Ichthyologists and Herpetologists/Herpetologists' League/Society for the Study of Amphibians and Reptiles, University of Washington, Seattle, Washington.
- 1997 Walls, S. C. and M. G. Williams. "The assembly of communities of pond-breeding amphibians: does high species richness promote coexistence between predators and their prey?" Presented at the Combined Meeting of the American Society of Ichthyologists and Herpetologists/Herpetologists' League/Society for the Study of Amphibians and Reptiles, University of Washington, Seattle, Washington.
- Lee, A. T., L. D. Yates and S. C. Walls. "Predator-prey interactions between the fishing spider, *Dolomedes vittatus* and the three-lined salamander, *Eurycea guttolineata*."
   Presented at the Annual Meeting of the Animal Behavior Society, Morehouse College and Zoo Atlanta, 5-9 August 2000.
- 2001 Arnold, J. C. and S. C. Walls. "The effects of genetic relatedness and alternate prey on cannibalism in mosquitofish." Presented at the Annual Meeting of the American Society of Ichthyologists and Herpetologists, Pennsylvania State University, 5-10 July 2001.
- 2001 Walls, S. C., R. Taylor, J. Lichtenberg, and J. Doherty. "The effect of conspecifics on the performance of juvenile spadefoot toads: the consequences of variation in body size." Presented at the Annual Meeting of the Herpetologists' League and the Society for the Study of Amphibians and Reptiles, Indianapolis, IN, 27-31 July 2001.
- 2002 Walls, S. C. "The importance of temporal and environmental variation for species' coexistence in a guild of pond-breeding salamanders." Presented at the combined annual meeting of the American Society of Ichthyologists and Herpetologists; The Herpetologists' League; and The Society for the Study of Amphibians and Reptiles, Kansas City, MO, 3-8 July, 2002.

- 2003 Lichtenberg, J. S., S. L. King, J. B. Grace and S. C. Walls. "Habitat associations of chorusing anurans in the Lower Mississippi River Alluvial Valley." Annual meeting of the Society of Wetland Scientists, New Orleans, LA, June, 2003.
- Walls, S., K. Wharton, J. Doherty, D. Drake and K. Roberts. "Monitoring anuran calling activity and associated climatic factors at different wetland types." Presented in the Amphibian Research and Monitoring symposium at the annual meeting of the Society of Environmental Toxicology and Chemistry, Austin, TX, 9-13 November, 2003.
- Walls, S. C., J. L. Doherty, K. Roberts, D. L. Drake, K. L. Wharton and J. McCoy. "The utility of PDAs as automated recording devices: the future frogloggers?" Presented in the Amphibian Research and Monitoring symposium at the annual meeting of the Society of Environmental Toxicology and Chemistry, Austin, TX, 9-13 November, 2003.
- Drake, D. L., S. C. Walls and R. Altig. "Occurrence of visually-detectable oral defects in larval anurans." Presented in the Amphibian Research and Monitoring symposium at the annual meeting of the Society of Environmental Toxicology and Chemistry, Austin, TX, 9-13 November, 2003.
- 2004 Walls, S. C., K. L. Wharton, J. L. Doherty, D. L. Drake and K. Roberts. "Monitoring anuran amphibians in the Atchafalaya Basin, Louisiana: species richness varies with site hydrology and climate." Presented at the Combined Meeting of the American Society of Ichthyologists and Herpetologists/Herpetologists' League/Society for the Study of Amphibians and Reptiles/American Elasmobranch Society, Norman, OK, 26-31 May, 2004.
- 2004 Drake, D. L., S. C. Walls and R. Altig. "Oral defects in tadpoles from natural sites. Joint meeting of Ichthyologists and Herpetologists." Presented at the Combined Meeting of the American Society of Ichthyologists and Herpetologists/Herpetologists' League/ Society for the Study of Amphibians and Reptiles/American Elasmobranch Society, Norman, OK, 26-31 May, 2004.
- 2004 Wharton, K. L., J. L. Doherty, K. Roberts, D. L. Drake and S. C. Walls. "The future frogloggers: PDAs as automated recording devices." Presented at the Combined Meeting of the American Society of Ichthyologists and Herpetologists/Herpetologists' League/Society for the Study of Amphibians and Reptiles/American Elasmobranch Society, Norman, OK, 26-31 May, 2004.
- 2005 Drake, D. L., R. Altig, and S. C. Walls. "Post-injury regeneration of the major components of the oral discs of larval ranids." Presented at the Combined Meeting of the American Society of Ichthyologists and Herpetologists/Herpetologists' League/ Society for the Study of Amphibians and Reptiles/American Elasmobranch Society, Tampa, FL, 6-11 July, 2005.
- 2005 Irwin, L., and S. Walls. "A partnership approach to monitoring the health of amphibians in the Lower Mississippi Valley." Presented at the Lower Mississippi River Ecosystem Team Meeting (U.S. Fish & Wildlife Service), Stuttgart, AR, 23-25 August 2005.

- 2006 Walls, S. C., Wharton, K. L., Doherty, J. L., and Drake, D. L. "Relationship between anuran species richness and the composition of bottomland hardwood forests." Joint Meeting of Ichthyologists and Herpetologists, 12-17 July 2006, New Orleans, LA
- 2006 Faulkner, S., W. Barrow, B. Keeland and S. Walls. 2006. <u>Invited presentation</u> in the workshop, "Managing Agricultural Landscapes for Environmental Quality: Strengthening the Science Base", organized by the Soil and Water Conservation Society, Kansas City, MO.
- 2007 Walls, S., S. Faulkner, W. Barrow, and B. Keeland. USGS sponsored workshop, "Understanding Agriculture's Effects on Amphibians and Reptiles in a Changing World". St. Louis, MO, January 2007.
- Walls, S., S. Faulkner, W. Barrow, and B. Keeland. "Evaluating wetland restoration practices in the Lower Mississippi Valley: impacts on amphibian species richness." Joint meeting of Ichthyologists and Herpetologists, St. Louis, MO, 11-16 July 2007.
- 2007 Mitchell, J.C. and S.C. Walls. "Nest Site Selection by Diamond-backed Terrapins (*Malaclemys terrapin*) on Fisherman Island, Virginia." Joint meeting of Ichthyologists and Herpetologists, St. Louis, MO, 11-16 July 2007.
- 2008 Ball, L.C. and S.C. Walls. "Using Model-Based Monitoring in a National Amphibian Monitoring Program." **Invited presentation** at the annual meeting of the Society of Conservation Biologists, Chattanooga, TN, 13 July 2008.
- 2008 Rothermel, B.B., S.C. Walls, J.C. Mitchell, C.K. Dodd, Jr., L.K. Irwin, D.E. Green, V.M. Vazquez, J.W. Petranka and D.J. Stevenson. "Widespread Occurrence of *Batrachochytrium dendrobatidis* in the Southeastern United States". Presented at the annual Joint Meeting of Ichthyologists and Herpetologists, Montreal, Canada, 26 July 2008.
- 2008 Barichivich, W.J., A.W. Demopoulos and S.C. Walls. "Stable isotopes as a tool to determine trophic interactions of feral pigs (*Sus scrofa*) at St. Marks National Wildlife Refuge." Annual meeting of the Gopher Tortoise Council, Jekyll Island, GA, 4 October 2008.
- Walls, S.C. "Temporary wetland ecosystems in the face of climate change: an amphibian perspective." Annual meeting of the Gopher Tortoise Council, Jekyll Island, GA, 4 October 2008.
- Walls, S.C. 2008. "Temporary wetland ecosystems in the face of climate change: an amphibian perspective." **Invited Keynote Presentation** in the session, "Climate Change, Wetlands, and Water Resources of the Southeast". Annual meeting of the South Central and South Atlantic Chapters, Society of Wetland Scientists, University of Alabama, Tuscaloosa, AL, 10 October 2008.

- Walls, S.C., K.G. Rice and F.J. Mazzotti. "Amphibians as indicators of restoration success in Southwest Florida." Presented at the Joint meeting of Southeast and North Carolina Partners in Amphibian and Reptile Conservation (SEPARC and NCPARC), Montreat, NC, 20 February 2009.
- Walls, S.C., S.C. Richter, and W.J. Barichivich. "Ephemeral wetland ecosystems in the face of climate change: an amphibian perspective." Presented at the JMIH, 22-27 July 2009, Portland, OR.
- Waddle, J.H., S.C. Walls and R.M. Dorazio. "Occupancy dynamics in a Louisiana Assemblage of Anurans". Presented at the JMIH, 22-27 July 2009, Portland, OR.
- 2009 Barichivich, W.J., D.L. Calhoun, A.M. Cressler, M.S. Dalton, W.B. Hughes and S.C. Walls. "Batrachochytrium dendrobatidis surveillance in Great Smoky Mountains National Park: implications for environmental monitoring of a disease pathogen." Presented at the JMIH, 22-27 July 2009, Portland, OR.
- 2009 Walls, S.C., W.J. Barichivich, and M.E. Brown. Monitoring winter-breeding amphibians in upland ecosystems at St. Marks National Wildlife Refuge, Florida. Presented at the annual meeting of the Gopher Tortoise Council, Gainesville, FL 2-3 October 2009.
- 2009 Barichivich, W.J., D.L. Calhoun, A.M. Cressler, M.S. Dalton, W.B. Hughes and S.C. Walls. Surveillance for the amphibian chytrid fungus in the southeastern U.S.: implications for environmental monitoring of a disease pathogen in upland ecosystems. Presented at the annual meeting of the Gopher Tortoise Council, Gainesville, FL 2-3 October 2009.
- Walls, S.C., W.J. Barichivich, and M.E. Brown. Monitoring winter-breeding amphibians in upland ecosystems at St. Marks National Wildlife Refuge, Florida. Poster presentation at the annual meeting of Southeastern Partners in Reptile and Amphibian Conservation (SEPARC), 18-21 February 2010, Camp Ocala, FL.
- 2010 Haag, K.H., T.M. Lee, and S.C. Walls. Monitoring changes in freshwater wetland hydrology: approaches and applications in the southeastern U.S. Invited presentation in the Special Session, "Freshwater Wetland Hydrology: A Sentinel for Assessing Global Climate Change", joint meeting of the American Society of Limnology and Oceanography (ASLO) and the North American Benthological Society (NABS), Santa Fe, NM, 6-11 June 2010.

#### PRESENTATIONS - INVITED INSTITUTIONAL SEMINARS

- 1. Smithsonian Tropical Research Institute (Balboa, Panama); February, 1986.
- 2. Department of Zoology, Oregon State University; October, 1991.
- 3. Ecology and Evolution Group, Department of Biology, University of Oregon; May, 1992.
- 4. Department of Biology, Reed College (Portland, Oregon); September, 1992.

- 5. Department of Biology, Southwest Missouri State University; October, 1992.
- 6. Department of Biological Sciences, State University of New York Albany; March, 1993.
- 7. Department of Biology, The City College of The City University of New York; March, 1993.
- 8. Mountain Lake Biological Station (Pembroke, Virginia); July, 1994.
- 9. Columbia University, Seminar on Population Biology; February, 1995.
- 10. Department of Biology, State University of New York Cortland; February, 1995.
- 11. Department of Biology, Hofstra University (Hempstead, New York); February, 1995.
- 12. Department of Biology, Queens College of The City University of New York; September, 1995.
- 13. Department of Biological Sciences, The University of Southern Mississippi; April, 1996.
- 14. American Museum of Natural History Systematics Discussion Group/CUNY Colloquium in Ecology, Evolution, and Behavioral Biology; May, 1996.
- 15. Department of Biological Sciences, Mississippi State University; November, 1996.
- 16. Department of Biological Sciences, Southeastern Louisiana State University, May, 1999.
- 17. Department of Biology, University of Mississippi, January, 2000.
- 18. Department of Biological Sciences, University of Louisiana at Lafayette, March, 2001.
- 19. Department of Biology, Stephens College, Columbia, Missouri, April, 2001.
- 20. Department of Biology, Utica College of Syracuse University, Utica, New York, November, 2001.
- 21. Keynote speaker at the meeting of the Louisiana Herpetological Research Group, Louisiana Universities Marine Consortium (LUMCON), Cocodrie, Louisiana, November, 2001.
- 22. National Wetlands Research Center, Lafayette, Louisiana, December, 2001.
- 23. Florida Integrated Science Center, Gainesville, Florida, December, 2006.
- 24. Department of Wildlife Ecology and Conservation, University of Florida, Gainesville, FL, October, 2007.
- 25. Archbold Biological Station, Lake Placid, FL, April, 2009.
- 26. Department of Biology, University of South Carolina Upstate, Spartanburg, SC, March 2010.

#### HONORS, AWARDS, AND RECOGNITION

#### **Honors and Recognition**

2000, 2004 Who's Who Among America's Teachers

1990-1991 Who's Who Among Students in American Universities and Colleges

#### **Performance Awards**

- U.S. Geological Survey Performance Awards received annually: FY00, FY01, FY02, FY03 and FY04
- USGS STAR award, 2009

#### SERVICE ACTIVITIES

#### **Academic Service:**

• 2009 Invited external reviewer of the Graduate Program in Environmental Science at

Oregon State University. Invited by the Graduate Council of Oregon State University to serve as a representative of prospective employers of the graduates from its program. 3 June 2009.

- The City College of The City University of New York:
  - 1994-1996: University representative to the Board of Directors for the Black Rock Forest Consortium, an alliance of various academic, scientific and cultural institutions engaged in research, education, and conservation in the Black Rock Forest in New York's Hudson Highlands
- College of Science and Technology, University of Southern Mississippi:
  - 1997-2000: Freshman Mentor Program
  - 1998: Summer Faculty Research Grant Committee
- Department of Biological Sciences, University of Southern Mississippi:
  - 1996-2004: member of 16 graduate student committees (5 at The University of Louisiana at Lafayette)
  - 1998-2002: chair of 5 graduate student committees
  - 1998-1999: directed undergraduate Honors Thesis research
  - 1996 2000: Freshman Biology Program Committee
  - 1996: Departmental Seminar Series Committee
  - 1997-2000: Graduate Studies Committee
  - 1997-2000: Environmental Biology Committee
  - 1998: Five-Year Planning Committee

#### Service to U. S. Geological Survey:

- Served on a Research Grade Evaluation (RGE) Panel for Water Resources Division (WRD), Denver, CO (April 2001)
- Served on a Task Force that made recommendations to USGS research scientists affiliated with the Amphibian Research and Monitoring Initiative (ARMI) concerning strategies for conducting "stressors" research on amphibians (August-December 2001)
- Member of a review panel for competitive research proposals for the Amphibian Research and Monitoring Initiative (ARMI) (2002)
- Served on a Research Grade Evaluation (RGE) Panel for Biological Resources Division (BRD), Sacramento, CA (November 2007)

# **Service to Partner Agencies (U.S. Department of the Interior):**

- Invited participant in National Park Service Scoping Meeting for the Chihuahuan Desert Parks Inventory and Monitoring Network (May 2001)
- Organized/presented tadpole identification workshop for USFWS (Louisiana and Mississippi refuge personnel), held at Lacassine National Wildlife Refuge (25 March 2003)
- Participated in the Biological Review for Catahoula National Wildlife Refuge (U.S. Fish & Wildlife Service), October, 2004

#### Memberships in, and Service to, Professional Societies:

# • Society of Wetland Scientists

# • Society of Conservation Biologists

# • American Society of Ichthyologists and Herpetologists (ASIH)

## Elective Offices Held

1999-2006: Member of the Editorial Board for Copeia

1997-2006: Member of the Board of Governors

# Committee Assignments

2005-2006: ASIH History of the Society Committee

1997: Judge for the Stoye Award in General Herpetology at the annual meeting in

Seattle, WA.

1996: Judge for the Stoye Award in Genetics, Development and Morphology at the

annual meeting in New Orleans, LA.

# • Herpetologists' League (HL)

# Elective Offices Held

2003: Elected to the Executive Council, Class of 2007

#### Committee Assignments

2005-2008: Chair of the Herpetologists' League Nominating Committee

2002-2003: Associate Editor (Ethology) for Herpetologica

2002: Co-organizer of a symposium held at the annual meeting in Kansas City, MO.

#### Society for the Study of Amphibians and Reptiles (SSAR)

# **Committee Assignments**

1994: Judge of student presentations at the annual meeting in Athens, GA.

1990, 1992, 1997, and 2001: chaired paper sessions at the annual joint meeting of ASIH, HL and SSAR

# • Partners in Amphibian and Reptile Conservation (PARC)

2006: Elected as Chair of the National Research Working Group

2009: member of the Steering Committee for Southeastern PARC

# SCIENTIFIC JUDGEMENT RENDERED

• Reviewer of manuscripts for Animal Behaviour; Behavioral Ecology and Sociobiology; Biological Conservation; Canadian Journal of Zoology; Conservation Biology; Copeia; Diseases of Aquatic Organisms; Ecology; Ethology; Herpetologica; Herpetological Conservation and Biology; Herpetological Review; Hydrobiologia; Journal of Herpetology; Journal of Zoology; Oecologia; Southwestern Naturalist; The Herpetological Journal, and reviewed a book chapter manuscript for C.K. Dodd, Jr., for Techniques in Ecology and Conservation. Oxford University Press.

- Reviewer of proposals for the National Science Foundation, the National Geographic Society, and the National Fish and Wildlife Federation.
- Reviewer of two books for *The Quarterly Review of Biology*: (1) *Cannibalism: Ecology and Evolution among Diverse Taxa*, by M. A. Elgar and B. J. Crespi (1993) and (2) *The Ecology and Behavior of Amphibians*, by K.D. Wells (2008).